

REMARKS

In response to the Office Action mailed on September 24, 2008, Applicant respectfully requests reconsideration. Claims 1-28, 30, and 31 are pending in this application. Claims 1-7, 11, 14-21, 25, 28, 30, and 31 are rejected. Claims 8-10, 12, 13, 22-24, 26, and 27 contain allowable subject matter, but are objected to as being in dependent form. In this reply, no claims are being amended as Applicant respectfully submits the claims include limitations not taught or suggested by the cited prior art.

Claims 1, 15, 30, and 31 are independent claims, and the remaining claims are dependent claims. Applicant believes that the claims as presented are in condition for allowance. A notice to this affect is respectfully requested.

Applicant respectfully requests close attention to the following independent and dependent claims most likely to be subject of an on appeal.

Rejections under 35 U.S.C. § 102

Claims 1-7, 11, 14-21, 25, 28, and 30 have been rejected under 35 U.S.C. §102 as being anticipated by Gerard et al. (US 6,023,704). A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. M.P.E.P. 2131. Applicant respectfully traverses the rejection because Gerard fails describe each and every element as set forth in the claims.

Claim 1.

Claim 1 recites:

1. (Original) A method for processing client requests supporting a plurality of object models, the method comprising:

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receiving a former client request requiring access to a former object defined by a former object model;

mapping a former object required for access by the former client request to a corresponding current object existing within a current object model;

copying current object data within the current object of the current object model to former object data within an instantiation of the former object;

and

processing the former client request using the instantiation of the former object to satisfy the former client request.

Applicant respectfully submits that Gerard fails to describe “copying current object data within the current object of the current object model to former object data within an instantiation of the former object.” This is a step in a backwards compatibility process. Current object data is copied into former object data within an instantiation of the former object. In other words, the method **converts current data to old data**. The Office Action asserts that Gerard teaches this limitation in column 2, lines 58-60: “and reading and **converting the** state data of the **old object** (now the second object) **into the new object** (now the first object).” In other words, Gerard teaches converting the old object into the new object. This is the opposite of the limitation in claim 1. Thus, Gerard teaches the opposite of the claim limitation, and therefore Gerard fails to describe this limitation.

Additionally, Applicant respectfully submits that Gerard fails to describe “receiving a former client request requiring access to a former object defined by a former object model.” The Office Action asserts that Gerard describes this limitation in column 3, lines 50-52, and at column 4, lines 5-7. In the column 3 citation, Gerard reads: “Each object is an identifiable, encapsulated piece of code and data that provides one or more services when requested by a client.” In the

column 4 citation Gerard reads: "The server object receives and interprets the message, and can then decide what operations to perform."

In other words, Gerard teaches services requested by a client, and teaches receiving messages. Gerard does not explicitly teach the claim limitation. This section of Gerard describes an overview of object-oriented technology. Gerard is silent on receiving client requests requiring access to a former object defined by a former object model.

The Office Action also asserts that "former" and "current" is equated to be the same as "first" and "new second" as stated by Gerard. Applicant respectfully disagrees. The term "former" has more than one meaning. One meaning is "occurring in the past," and another meaning is "preceding in place or arrangement." (Merriam-Webster Online Dictionary. 2008. Merriam-Webster Online. 3 November 2008, www.merriam-webster.com/dictionary/former.) The claim language of claim 1 clearly identifies which definition is used. When "former" means "preceding in place or arrangement," typically the word "latter" is used in conjunction with former. When "former" means "occurring in the past," typically the word "current" is used in conjunction with former. Claim 1 uses the terms "former" and "current." In this sense, Gerard does not teach receiving a former client request requiring access to a former object defined by a former object model.

The method of processing client requests according to claim 1 means that the claimed method provides backwards compatibility even though the current object model is not directly backward compatible. This backward compatibility is for applications that access a changing object model. Gerard does not provide this benefit. Gerard only discusses changing or updating an object model without shutting down a system.

Accordingly, Applicant respectfully submits that claim 1 is in condition for allowance. Applicant respectfully requests the rejection under 35 U.S.C. §102 be withdrawn.

Claims 15 and 30.

Applicant respectfully submits that independent claims 15 and 30 are not anticipated by Gerard. Claim 1 is a process claim. Claims 15 and 30 are product/manufacture claims that claim similar subject matter as claimed in claim 1. For applicable reasons from the discussion of claim 1, Applicant respectfully submits that claims 15 and 30, likewise, are not anticipated by Gerard. Applicant respectfully requests that the rejection under 35 U.S.C. §102 be withdrawn.

Further Distinctions

Note that several of the dependent claims recite further patentable distinctions over the cited prior art for consideration. Applicant respectfully requests close attention to the following dependent claims, namely claims 3, 5, 7, and 11.

Claim 3.

3. (Original) The method of claim 2 wherein exposing a former service interface for use by former clients for receipt of former client requests comprises:

- providing a former remote method invocation interface for former clients to use to provide former client requests for processing; and

- concurrently providing a current remote method invocation interface for current clients to use to provide current client requests for processing.

Claim 3 recites: “providing a former remote method invocation interface for former clients to use to provide former client requests for processing.” The Office

Action asserts that Gerard teaches this limitation in column 3, line 65-column 4, line 7. The cited section of Gerard reads “the object system isolates the requestor of services...by a well defined encapsulating interface” and “the server object receives and interprets the message.” The encapsulating interface of Gerard is no more than a regular interface for receiving requests. Gerard discusses this interface in the overview section of object-oriented technology, and thus describes no more than a conventional interface used with requestors. Gerard is silent on exposing a former remote method invocation interface for use with former clients.

Additionally, claim 3 recites: “concurrently providing a current remote method invocation interface for current clients to use to provide current client requests for processing.” In other words, two interfaces are provided simultaneously—one interface for former client requests, and one interface for current client requests. The Office Action asserts that Gerard teaches this in column 8, lines 3-13. This section of Gerard describes what Gerard does after swapping data of first and second objects, in that Gerard completes the transformation of data without disturbing the identity of an object defined by an object header. Gerard is silent on concurrent or simultaneous remote invocation interfaces with one interface for former client requests and one interface for current client requests. Because Gerard fails to describe each and every limitation of claim 3, Applicant respectfully submits that claim 3 is not anticipated by Gerard. Applicant respectfully requests that the rejection under 35 U.S.C. §102 for claim 3 be withdrawn.

Claim 5.

5. (Original) The method of claim 4 wherein:

the former object and current object are defined in an object-oriented programming language; and
wherein obtaining a former object definition comprises:

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using a reflection technique to identify, from a former object model definition file, the former object definition based on the identity of the former object specified within the former client request; and wherein instantiating the former object within a memory system comprises:

using a former object class loader to load the former object definition, identified in the former object definition file, into the memory system as an instantiation of the former object.

Specifically, claim 5 recites: “wherein obtaining a former object definition comprises: using a reflection technique to identify, from a former object model definition file, the former object definition based on the identity of the former object specified within the former client request.” For example, an embodiment could use Java reflection to identify the former object definition. The Office Action asserts that Gerard teaches this limitation in column 4, lines 3-5. The cited section reads: “The server object receives and interprets the message, and can then decide what operations to perform.” Gerard discusses only receiving and interpreting messages, which is not a reflection technique used to obtain a former object definition model. The remaining specification of Gerard is also silent on using reflection techniques. Furthermore, Gerard is silent on “definition file” and “object class loader” as claimed. Because Gerard fails to describe each and every limitation of claim 5, Applicant respectfully submits that claim 5 is not anticipated by Gerard. Applicant respectfully requests that the rejection under 35 U.S.C. §102 for claim 5 be withdrawn.

Claims 7 and 11.

Claims 7 and 11 claim similar subject matter and so these claims are grouped together.

11. (Original) The method of claim 1 wherein copying current object data within the current object of the current object model to former object data within an instantiation of the former object comprises:

copying current object data values stored within current data fields of an instantiation of the current object to former data values within former data fields of an instantiation of the former object.

The Office Action cites Gerard column 8, lines 3-15 to describe this limitation. As previously discussed, this section of Gerard describes what Gerard does after swapping data of first and second objects, in that Gerard completes the transformation of data without disturbing the identity of an object defined by an object header. Gerard is silent on current object data values stores within current data fields of an instantiation of the current object to former data values within former data fields of an instantiation of the former object. Because Gerard fails to describe each and every limitation of claim 11, Applicant respectfully submits that claim 11 is not anticipated by Gerard. Applicant respectfully requests that the rejection under 35 U.S.C. §102 be withdrawn.

Claim 31.

Claim 31 has been rejected under 35 U.S.C. §102 as being anticipated by Halpern et al. (US 2003/0033442). Applicant respectfully submits that Halpern fails to anticipate claim 31 because Halpern fails to describes several limitations of claim 31.

31. (Previously Presented) A method for processing client requests supporting a plurality of object models, the method comprising:

receiving a plurality of requests from former client versions requiring access to respective former objects defined by respective former object models, wherein the object models are shared object models;

exposing former service interfaces for use by former client versions for receipt of requests from former client versions;

mapping former objects, required for access by the requests from former client versions, to a corresponding current object existing within a current object model, wherein the current object model is a shared model, and wherein the current object model is not directly backwards compatible with the requests from former client versions;

wherein mapping former objects further comprises indicating current objects that correspond to former objects defined in a former object definition file, and data within the current objects that correspond to data in the former objects;

copying current object data from fields of the current object of the current object model to former object data within an instantiation of the former objects; and

processing the requests from former client versions using the instantiation of the former objects to satisfy the former client requests, thereby providing backwards compatibility.

Claim 31 recites: “copying current object data from fields of the current object of the current object model to former object data within an instantiation of the former objects.” This is a step in a backwards compatibility process. Current object data is copied into former object data within an instantiation of the former object. In other words, the method converts current data to old data. The Office Action asserts that Halpern teaches this limitation in paragraph [0034] which reads: “It is a further objective of the present invention to store identification links that show the relationship of one class version to another.” Halpern is a versioning invention that enables an operator to make changes while an application server continues running. In other words, Halpern maintains information about class versions. Claim 31 does not recite storing identification links to show class version relationships. Instead, claim 31 recites: “copying current object data from fields of the current object of the current object model to

former object data within an instantiation of the former objects.” Thus, Halpern fails to teach this limitation.

Claim 31 recites: “exposing former service interfaces for use by former client versions for receipt of requests from former client versions.” The Office Action asserts that Halpern describes this limitation on page 2, paragraphs [0015]-[0016]. This section of Halpern describes interfaces similar to interfaces described by Gerard. The cited section of Halpern is located in the background section of Halpern’s disclosure and focuses on giving background to object-oriented programming. Halpern thus describes no more than a conventional interface as part of an object-oriented programming environment. Halpern is silent on exposing an interface for use by former client versions for receipts of requests from former client versions. Thus, Halpern fails to teach this limitation.

Claim 31 recites: “mapping former objects, required for access by the requests from former client versions, to a corresponding current object existing within a current object model, wherein the current object model is a shared model, and wherein the current object model is not directly backwards compatible with the requests from former client versions.” The Office Action asserts that Halpern teaches this limitation in paragraph [0034] which reads: “It is a further objective of the present invention to store identification links that show the relationship of one class version to another.” Halpern describes an objective to class version relationships, but fails to explicitly, or implicitly, describe mapping former objects, requests from former client versions, current object model is a shared model, the current object model is not directly backwards compatible with requests from former client versions. Therefore, Halpern fails to teach this limitation of claim 31.

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Accordingly, Applicant respectfully submits that claim 31 is in condition for allowance. Applicant respectfully requests the rejection under 35 U.S.C. §102 be withdrawn.

Summary

Applicants respectfully submit that the claims in the subject application are not anticipated by Gerard or Halpern because the prior art fails to teach or disclose each and every element of the claimed invention. Thus, Applicants submit that the pending claims are in condition for allowance.

Applicant hereby petitions for any extension of time which is required to maintain the pendency of this case. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 50-3735.

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